

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 14. (Canceled).

15. (Currently Amended) A fuel injector for a fuel injection system of an internal combustion engine, comprising:
an energizable actuating element;
a valve seat element;
a rigid valve seat provided on the valve seat element; and
a valve closing element that is axially movable along a valve longitudinal axis and that works in conjunction with the rigid valve seat so as to open and close a valve, wherein:

at least one outlet opening is provided downstream from the rigid valve seat, the valve closing element and the valve seat element being designed so that an opening movement of the valve closing element is fuel-pressure-assisted, wherein:

the opening movement of the valve closing element is directed away from the at least one outlet opening,

a closing movement of the valve closing element is directed toward the at least one outlet opening, and

the valve closing element has an inner through hole through which a fuel flows in a direction that is opposite to the opening movement of the valve closing element, the valve closing element and the valve seat element configured to reverse the direction of fuel flow between the through hole of the valve closing element and the at least one outlet opening.

16. (Currently Amended) The ~~fuel injection valve~~ injector according to claim 15, wherein:

upstream from the rigid valve seat, between the valve closing element and the valve seat element, a hollow space is formed, from which the fuel flows toward the rigid valve seat, the flowing fuel having a radial, outward flow component.

17. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 15, wherein:

upstream from the rigid valve seat, between the valve closing element and the valve seat element, a hollow space is formed, from which the fuel flows toward the rigid valve seat, the flowing fuel having a radial flow component and an axial flow component in a direction of the opening movement of the valve closing element.

18. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 15, wherein:

the valve closing element is partial-sphere-shaped.

19. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 15, further comprising:

a needle sleeve through which the fuel flows and to which the valve closing element is rigidly connected in a pressure-tight manner.

20. (Currently Amended) ~~[[The]] A fuel injection valve according to claim 19,~~
~~wherein:~~ injector for a fuel injection system of an internal combustion engine,
comprising:

an energizable actuating element;

a valve seat element;

a rigid valve seat provided on the valve seat element; and

a valve closing element that is axially movable along a valve longitudinal axis

and that works in conjunction with the rigid valve seat so as to open and close a valve;

wherein at least one outlet opening is provided downstream from the rigid valve seat, the valve closing element and the valve seat element being designed so that an opening movement of the valve closing element is fuel-pressure-assisted;

wherein the opening movement of the valve closing element is directed away from the at least one outlet opening;

wherein a closing movement of the valve closing element is directed toward the at least one outlet opening;

wherein the valve closing element has an inner through hole through which a fuel flows in a direction that is opposite to the opening movement of the valve closing element;

the fuel injector further comprising a needle sleeve through which the fuel flows and to which the valve closing element is rigidly connected in a pressure-tight manner;

wherein the needle sleeve at least partially penetrates and is attached to the inner through hole of the valve closing element.

21. (Currently Amended) ~~[[The]]~~ A fuel injection valve according to claim 19, further comprising: injector for a fuel injection system of an internal combustion engine, comprising:

an energizable actuating element;

a valve seat element;

a rigid valve seat provided on the valve seat element; and

a valve closing element that is axially movable along a valve longitudinal axis and that works in conjunction with the rigid valve seat so as to open and close a valve;

wherein at least one outlet opening is provided downstream from the rigid valve seat, the valve closing element and the valve seat element being designed so that an opening movement of the valve closing element is fuel-pressure-assisted;

wherein the opening movement of the valve closing element is directed away from the at least one outlet opening;

wherein a closing movement of the valve closing element is directed toward the at least one outlet opening;

wherein the valve closing element has an inner through hole through which a fuel flows in a direction that is opposite to the opening movement of the valve closing element;

the fuel injector further comprising a needle sleeve through which the fuel flows and to which the valve closing element is rigidly connected in a pressure-tight manner;

the fuel injector further comprising a valve housing to which the needle sleeve is attached rigidly and in a pressure-tight manner at an end opposite the valve closing element, wherein:

a section of the needle sleeve is resilient and elastic, and
an axial movement of the valve closing element is enabled by the section of the needle sleeve that is resilient and elastic.

22. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 21, wherein:

the section of the valve needle that is resilient and elastic is pleated in a helical manner.

23. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 15, wherein:

the valve seat element includes a middle trough-shaped recess that is adjacent to a truncated-cone-shaped valve seat surface of the rigid valve seat in the direction of flow.

24. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 15, wherein:

the valve seat element is embodied as a flat seat.

25. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 23, wherein:

the valve seat element has no inner flow openings, so that an axial fuel flow path in a direction of the at least one outlet opening is embodied exclusively at an outer periphery of the valve seat element.

26. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 25, wherein:

the valve seat element includes a non-circular outer contour having at least one flattened part that creates the axial fuel flow path.

27. (Currently Amended) The fuel ~~injection valve~~ injector according to claim 26, wherein:

the valve seat element is largely trihedral in shape and includes three flattened parts.

28. (New) The fuel injector according to claim 15, the through hole of the valve closing element is arranged so that in an open position of the valve closing element, the fuel flows inside the valve closing element past a plane of contact that is defined between the valve closing element and the sealing seat with the valve closing element in a closed position and thereafter passes a line of contact between the valve closing element and the sealing seat at the periphery of the valve closing element.